

**EPA Superfund  
Record of Decision:**

**NIAGARA MOHAWK POWER CORP. (SARATOGA  
SPRINGS PLANT)**

**EPA ID: NYD980664361**

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**SARATOGA SPRINGS, NY**

**09/29/1995**

RECORD OF DECISION

Niagara Mohawk Power Corporation Site

Town of Saratoga Springs, Saratoga County, New York  
September 1995

United States Environmental Protection Agency  
Region II  
New York, New York

## **DECLARATION FOR THE RECORD OF DECISION**

### **SITE NAME AND LOCATION**

Niagara Mohawk Power Corporation Site  
Town of Saratoga Springs  
Saratoga County, New York

### **STATEMENT OF BASIS AND PURPOSE**

This Record of Decision (ROD) documents the U.S. Environmental Protection Agency's (EPA) selection of the remedial action for the Niagara Mohawk Power Corporation (NMPC) Site (the Site) in accordance with the requirements of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. §§9601 - 9675 and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300. This decision document summarizes the factual and legal basis for selecting the remedy for this Site.

The New York State Department of Environmental Conservation (NYSDEC) concurs with the selected remedy. A letter of concurrence from the NYSDEC is attached to this document (see Appendix IV).

An administrative record for the Site contains the documents that form the basis for EPA's selection of the remedial action, the index for which is attached as Appendix III.

### **ASSESSMENT OF THE SITE**

Actual or threatened releases of hazardous substances from the Site, if not addressed by implementing the response action selected in this ROD, may present an imminent and substantial endangerment to public health, welfare, or the environment.

### **DESCRIPTION OF THE SELECTED REMEDY**

The primary objectives of this remedy are to minimize the potential for further migration of contaminants from source areas into soils or ground water on the NMPC property; to collect and remove, to the extent possible, any potential dense non-aqueous phase liquid (DNAPL) beneath the NMPC property; and to minimize or eliminate the potential for Site contaminants to be transported to off-site locations, thereby minimizing any health and environmental impacts.

The major components of the selected remedy include the following:

- Source and Surface Soil Removal

The purpose of this action is to remove source materials or areas of concentrated coal tar having total PAH concentrations exceeding 1,000 parts per million (ppm), that are accessible and are significant in terms of volume, concentration, and the potential for continued, long-term subsurface impacts; and to remove contaminated surface soils from 0 to 2 feet below ground surface. The source areas include structures known as former Gas Holder Nos. 1, 2, 3, and 5, and several other areas around the NMPC property. During the remedial design phase, additional subsurface sampling will be conducted on the NMPC property, including Holder No. 4 where concentrated tar contamination was visually observed, to determine if additional PAH source areas are present, thereby requiring removal. This soil removal requires the demolition of surface structures in and around the source areas, including the Round House structure over Holder No. 2 and the gas regulator station over Holder No. 1. Approximately 16,700 cubic yards of source material and 3,500 cubic yards of contaminated surface soils will be removed. These volume estimates do not include Holder No. 4.

Excavation of contaminated soil, DNAPL, and associated source material within and around the Holder No. 3, also known as the tar/water separator will be implemented. The Holder structure will remain, in place and be filled with a suitable backfill material.

Excavated material that exhibits a hazardous characteristic will be rendered non-hazardous by blending it with coal fines or other suitable material on site prior to transport off site for co-burning in a utility boiler, and/or treatment and disposal at an off-site permitted hazardous waste facility. All non-hazardous material encountered during excavation activities will be disposed of at an off-site solid waste management facility, and contaminated surface soil will be managed in an off-site cold batch asphalt plant to produce asphalt paving for the NMPC property. Recovered DNAPL and coal tar will be managed off site at a tar processing facility. If these materials exhibit a hazardous characteristic, they will be managed as hazardous waste as described above.

As set forth in the Institutional Controls and Monitoring Section below deed restrictions on the NMPC property will be required.

- Installation of Subsurface Barriers and Ground Water Management

The purpose of the installation of subsurface barrier walls is twofold: 1) to contain contaminated ground water on the NMPC property, and 2) to contain and collect DNAPL residing in the vicinity of the subsurface barrier walls. Subsurface barriers will be installed at the southeast and southwest corners of the NMPC property where contaminated ground water and DNAPL can potentially migrate off site. The ground water in the shallow aquifer beneath the NMPC property and the DNAPL residing in the vicinity of the subsurface barrier walls will be collected by using drains installed inside and along the lengths of the barrier walls. The DNAPL and ground water collected will be transferred through a subsurface pipe into a collection sump, then pumped to the on-site water treatment facility.

Construction of an on-site water treatment facility will be required to pretreat contaminated ground water prior to discharge to the local publicly owned wastewater treatment plant (POTW) operated by the Saratoga Sewer District. The treatment process for the contaminated water includes DNAPL/water separation, metals removal by precipitation, and biological treatment.

Ground water upgradient of the NMPC property (which has not been impacted by the NMPC property contaminants) will be collected using a curtain drain and diverted to either the twin box culvert storm sewer system west of the NMPC property or the culverted Village Brook east of the NMPC property. The NMPC property will be capped with asphalt to prevent infiltration of precipitation.

- Soil Removal from the Skating Rink Area

The purpose of this action is to remove subsurface soils that exceed cleanup levels in the vicinity of the municipal skating rink. The long-term impact of this subsurface soil contamination potentially could contaminate the skating rink ground water, and this contaminated ground water could potentially migrate off-site. Such contaminant migration could have adverse impacts on downgradient ground water users. Therefore, in order to prevent migration of contaminated ground water beyond the skating rink area, and to restore the ground water by the skating rink area to drinking water standards, all sources of contamination that are contributing to ground water contamination in the vicinity of the skating rink would need to be eliminated.

The contaminated skating rink area subsurface soils will be dewatered and excavated. Approximately 4,200 cubic yards of contaminated subsurface soil will be excavated. Confirmation sampling will be conducted to assure attainment of cleanup levels. The excavated material will be managed as described in the Source and Surface Soil Removal Action Sections.

The remedial design phase will include further subsurface soil investigation in the skating rink area to determine whether additional soils are contaminated. This soil investigation will be performed outside the boundaries of the skating rink structure. Soil sampling beneath the skating rink structure is not feasible while the building is intact. Such soil sampling will be conducted when the soils become accessible. The soils will become accessible if and when the skating rink is both taken out of service and demolished. If sampling identifies contaminated soil at concentrations above the soil cleanup levels, the affected soil will be removed, and additional sampling will be conducted to assure that the removal achieved cleanup levels.

If contaminated soils are currently present beneath the skating rink, they are inaccessible, and any contact with such soils is unlikely. Moreover, the structure serves as a cover that prevents infiltration of precipitation through such soils. Therefore if present, such soils do not pose a risk to human health and the environment.

After the contaminated soil is removed around the skating rink area, and the barriers are erected on the NMPC property, the sources of contamination impacting on the skating rink area will be eliminated. Because the sources of contamination will be eliminated, it is expected that the level of contaminants in the ground water in the vicinity of the skating rink will decline over time, and achieve compliance with the Federal and New York State Drinking Water Standards and New York State Ground Water Quality Standards through natural attenuation. The remedy requires monitoring of the ground water to measure improvement in the ground water quality. If improvement in ground water quality is not observed upon review of the annual ground water monitoring results, a program to evaluate contingency alternatives for ground water remediation in the skating rink area will be initiated and implemented in a timely manner.

As set forth in the Institutional Controls and Monitoring Section below, EPA recommends the imposition of a notice in the property records pertaining to the skating rink property to inform interested parties of the potential presence of contamination underneath the skating rink. This notice should remain in the property records until after the skating rink is taken out of service, demolished, and any contaminated soils removed.

- Sediment Removal

The sediment removal action involves the dredging and/or excavation of approximately 1,200 cubic yards of impacted sediments and wetlands soils at the confluence of Loughberry Creek and Village Brook, near the outfall of the concrete box culvert, near the outfall of the brick sewer, and at four locations on the NMPC property. Confirmation sampling to assure attainment of cleanup levels will be conducted. Contaminated sediments will be transported off site for treatment and proper disposal. Appropriate actions will be taken to restore the wetlands.

- Remediation of the Sewer Migration Pathway

The purpose of this action is to eliminate the impacts to the wetland surface water or Spring Run from the migration of NMPC property contaminants through the underground brick sewer.

Stormwater flow through the brick sewer and Village Brook upstream of the NMPC property will be diverted to the twin box culvert storm sewer, so no stormwater will flow through the NMPC property. At the southeast corner of the NMPC property, the brick sewer will be disconnected and a water/DNAPL collection sump will be constructed to prevent any ground water which infiltrated the sewer from leaving the property. The downstream section of the sewer from the southeast corner of the NMPC property to the brick sewer outfall, near Interstate 87, will be cleaned. Infiltration spots along the downstream section of the brick sewer, from the point at which it is disconnected to the concrete box culvert, will be sealed to prevent infiltration of impacted ground water into the sewer. The break in the brick sewer near the confluence of Loughberry Creek and Village Brook will be repaired. The materials generated from cleaning the brick sewer will be properly disposed of off site. Control of releases from the brick sewer described above will stop the potential for continuing impacts to sediments in Spring Run.

- Institutional Controls and Monitoring

Because contaminants will remain on the NMPC property after implementation of the remedy, deed restrictions to prevent future residential use of the property and notifications to utility companies will be required to limit exposure to the subsurface contaminants that remain on the NMPC property. The implementation of deed restrictions will be the responsibility of NMPC. NMPC has indicated to EPA that it will maintain future ownership of the NMPC property, thereby further restricting the potential for future residential development of the property. EPA recommends the imposition of a notice in the property records pertaining to the skating rink property to inform interested parties of the potential presence of contamination underneath the skating rink. This notice should remain in the property records until after the

skating rink is taken out of service, demolished, and any contaminated soils removed. No deed restrictions are necessary on the Spring Run wetland area because the sediment and soil contamination above the cleanup levels will be removed.

A monitoring program will be implemented to assess the effectiveness of the remedial action. Samples for analysis will be obtained from monitoring wells, the Old Red Spring, the diverted ground water upgradient of the NMPC property (which has not been impacted by the NMPC property contaminants), and the discharge from the on-site water treatment system, as required by the Saratoga County Sewer discharge permit.

#### **DECLARATION OF STATUTORY DETERMINATIONS**

The selected remedy meets the requirements for remedial actions set forth in CERCLA §121, 42 U.S.C. §9621, is protective of human health and the environment and is cost-effective. The remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable, given the scope of the action, and will permanently reduce the toxicity, mobility, or volume of contaminants at the Site. In addition, the cleanup actions to remediate the NMPC property, the municipal skating rink, the underground sewer, and the contaminated sediments in Spring Run comply with Federal and State requirements that are legally applicable or relevant and appropriate (ARARs) to the remedial action.

Remediation of the NMPC property ground water in the shallow aquifer is considered to be technically impracticable. Therefore, this ROD waives the federal and state drinking water standards and state ground water quality standards for the ground water in the shallow aquifer beneath the NMPC property. The waiver is issued pursuant to Section 121(d) (4) (c) of CERCLA, 42 U.S.C. §9621(d) (4) (c) , and §300.430(f) (1) (ii) (c) (3) of the NCP which authorizes EPA to waive applicable or relevant and appropriate requirements for ground water cleanup of the NMPC shallow aquifer based on technical impracticability, from an engineering perspective. There are technical limitations which make it impracticable to recover all the DNAPL from the NMPC property. In order to remove all the DNAPL, approximately 7 acres of contaminated aquifer materials, including soil, silt, peat, and sand, residing above the subsurface clay layer (which begins approximately 20 feet below the surface), would need to be excavated for off-site disposal. In addition, all NMPC's operating facilities would have to be demolished to gain access to the contamination beneath them. Since it is technically impracticable to excavate this large an area, some DNAPL and PAH impacted soil will remain on the NMPC property. Because the DNAPL and residual PAHs contribute to dissolved phase ground water contamination, restoration of ground water on the NMPC property to ground water cleanup levels has been determined to be technically impracticable.

EPA believes that the selected remedy for the ground water in the shallow aquifer beneath the NMPC property remains protective of human health and the environment. Recognizing that ground water restoration in the shallow aquifer beneath the NMPC property is technically impracticable, the goal of this remedial action is to establish hydraulic control of the NMPC contaminated ground water, to prevent ground water and DNAPL from flowing off site by using physical and hydraulic barriers. This action complies with Federal and State requirements that are applicable or relevant and appropriate to this remedial action and is cost-effective. In addition, the ground water remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable for the Site.

A review of the remedial action, pursuant to CERCLA §121(c), 42 U.S.C. §9621(c), will be conducted no less than each five years after the commencement of the remedial action to ensure that the remedy continues to provide adequate protection to human health and the environment, because this remedy will result in hazardous substances remaining on the NMPC property above health-based levels.

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Jeanne M. Fox  
Regional Administrator

Date